

January 2005 Water Sampling

**Validation Data Package
for
Configuration 1 Interim Action
Well Field Monthly Sampling
Moab, Utah**

April 2005

Moab, Utah

January 25-27, 2005

Data Package Contents

This data package includes the following information:

<u>Item No.</u>	<u>Description of Contents</u>
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	Water Sampling Field Activities Verification Checklist
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Attachment 1—Data Presentation

Minimums and Maximums Report
Anomalous Data Review Checksheet
Water Quality Data
Water Level Data
Time Versus Concentration Graphs

Attachment 2—Trip Report

Sampling Event Summary

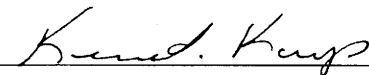
Site: Moab, Utah

Sampling Period: January 25-27, 2005

The purpose of this sampling was to collect data that can be used to evaluate the performance of Configuration 1 of the interim action well field. The extraction wells had been operating since June 2004 and were shut down for the winter on December 23, 2004. This is the first monthly performance sampling round conducted in 2005 for Configuration 1 and represents unstressed conditions.

Sampling and analysis was conducted in accordance with the *Operations, Maintenance, and Performance Monitoring Plan for the Interim Action Ground Water Treatment System, February 2004*. Ground water samples were collected from 10 extraction wells (0470-0479), 13 observation wells (0403, 0407, 0480-0485, 0557 [2 depths], 0558 [2 depths], 0559, and 0560 [2 depths], and 0561 [2 depths]), 4 piezometers (0562-0565), and 2 surface water locations (0216 and 0245). Including two duplicates and one equipment blank, a total of 36 samples were collected.

Time versus concentration graphs for selected wells and analytes are included.

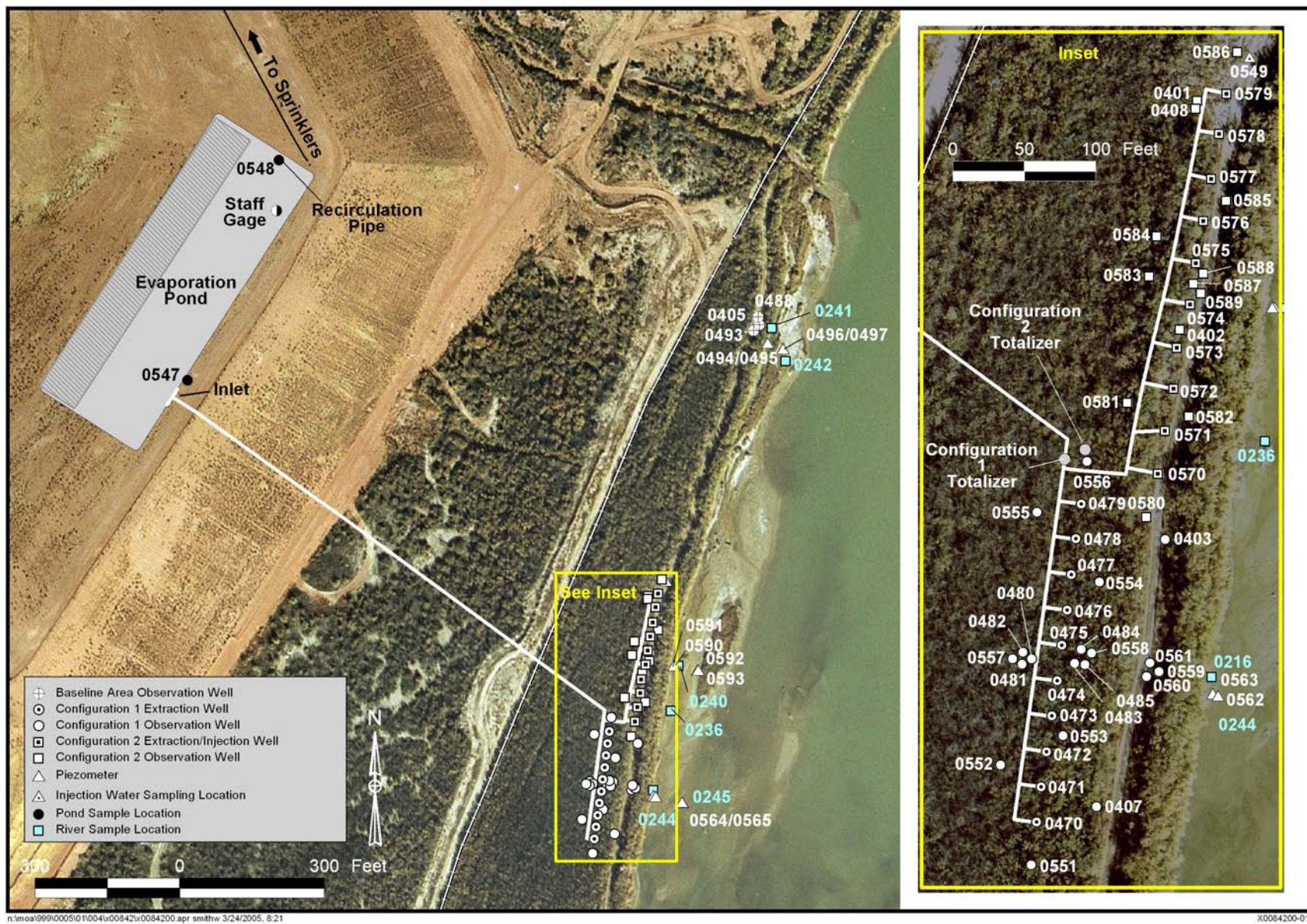


Kenneth E. Karp
Site Lead

4-13-05

Date

Sample Location Map



Sample Locations at the Interim Action Well Field and Baseline Area (may include locations not sampled)

Data Assessment Summary

Water Sampling Field Activities Verification Checklist

Project	<u>Moab, Utah</u>	Date(s) of Water Sampling	<u>January 25-27, 2005</u>
Date(s) of Verification	<u>March 17, 2005</u>	Name of Verifier	<u>Jeff Price</u>

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures?	<u>Yes</u>	
List other documents, SOP's, instructions.	<u>NA</u>	
2. Were the sampling locations specified in the planning documents sampled?	<u>Yes</u>	
3. Was a pre-trip calibration conducted as specified in the above named documents?	<u>Yes</u>	
4. Was an operational check of the field equipment conducted twice daily?	<u>Yes</u>	
Did the operational checks meet criteria?	<u>Yes</u>	
5. Were the number and types (alkalinity, temperature, Ec, pH, turbidity, DO, ORP) of field measurements taken as specified?	<u>Yes</u>	
6. Was the Category of the well documented?	<u>Yes</u>	
7. Were the following conditions met when purging a Category I well:		
Was one pump/tubing volume purged prior to sampling?	<u>Yes</u>	
Did the water level stabilize prior to sampling?	<u>Yes</u>	
Did pH, specific conductance, and turbidity measurements stabilize prior to sampling?	<u>Yes</u>	
Was the flow rate less than 500 mL/min?	<u>Yes</u>	
If a portable pump was used, was there a 4 hour delay between pump installation and sampling?	<u>NA</u>	

Water Sampling Field Activities Verification Checklist (continued)

	Response (Yes, No, NA)	Comments
8. Were the following conditions met when purging a Category II well:		
Was the flow rate less than 500 mL/min?	Yes	
Was one pump/tubing volume removed prior to sampling?	Yes	
9. Were duplicates taken at a frequency of one per 20 samples?	Yes	
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?	Yes	
11. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
12. Were QC samples assigned a fictitious site identification number?	Yes	
Was the true identity of the samples recorded on the Quality Assurance Sample Log?	Yes	
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	Yes	
15. Were the number and types of samples collected as specified?	Yes	
16. Were chain of custody records completed and was sample custody maintained?	Yes	
17. Are field data sheets signed and dated by both team members?	Yes	
18. Was all other pertinent information documented on the field data sheets?	Yes	
19. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	
20. Were water levels measured at the locations specified in the planning documents?	Yes	

Laboratory Performance Assessment

General Information

Requisition No.: 05010159
Sample Event: January 25, 26, and 27, 2005 Water Sampling
Site(s): Moab, Utah
Laboratory: Paragon Analytics
Work Order No.: 0501196
Analysis: Metals and Inorganics
Validator: Steve Donovan
Review Date: March 3, 2005

This validation was performed according to the *Environmental Procedures Catalog* (STO 6), “Standard Practice for Validation of Laboratory Data”, GT-9(P). The samples in this work order were analyzed concurrently with the samples from requisition 05010160. The two work orders share the same quality control data. All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 1.

Table 1. Analytes and Methods

Analyte	Line Item Code	Prep Method	Analytical Method
Uranium, U	GJO-01	SW-846 3005A	SW-846 6020
Chloride, Cl	MIS-A-039	SW-846 9056	SW-846 9056
Sulfate, SO ₄	MIS-A-044	SW-846 9056	SW-846 9056
Ammonia as N, NH ₃ -N	WCH-A-005	MCAWW 350.1	MCAWW 350.1
Total Dissolved Solids, TDS	WCH-A-033	MCAWW 160.1	MCAWW 160.1

Data Qualifier Summary

The uranium results are qualified as “U” as listed in Table 2.

Table 2. Qualified Results

Sample Number	Location	Analyte	Flag	Reason
0501196-29	2756	Uranium	U	Less than 5 times the blank

Sample Shipping/Receiving

Paragon Analytics in Fort Collins, Colorado, received 30 samples on January 28, 2005 and an additional 6 samples on January 29, 2005 accompanied by Chain of Custody (COC) forms. The COC forms were checked to confirm that all of the samples were listed and that signatures and dates were present, indicating sample relinquishment and receipt. The sample submittal documents including the COC forms and the sample tickets had no errors or omissions.

Preservation and Holding Times

The sample shipment was received intact with the temperatures within the coolers of 2.4, 1.2, and 3.6 °C, which comply with requirements. Due to limited volumes samples from piezometer locations 0562, 0563, 0564, and 0565 were shipped to the laboratory unfiltered and un-acidified. Aliquots of these samples were filtered and acidified for uranium analysis upon receipt by the laboratory. All other samples had been preserved correctly for the requested analyses. All samples were analyzed within the applicable holding times.

Laboratory Instrument Calibration

All laboratory instrument calibrations were performed correctly in accordance with the cited methods.

Method SW-846 6020

Calibration for uranium was performed on February 15, 2005 using 4 calibration standards resulting in a correlation coefficient (r^2) value greater than 0.995. The absolute value of the intercept was less than 3 times the method detection limit (MDL). Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification (CCV) checks were made at the required frequency resulting in 9 CCVs. All calibration checks met the acceptance criteria. A reporting limit verification check was made at the required frequency, was within the acceptance criteria, and the linearity of the calibration curve near the practical quantitation limit was verified. The mass calibration and resolution was checked at the beginning of each analytical run and the internal standard recoveries were stable and within acceptance ranges.

Method SW-846 9056

Initial calibrations were performed for chloride and sulfate using 5 calibration standards on January 31, 2005. The r^2 values were greater than 0.995 and intercepts less than 3 times the MDL. Initial calibration and calibration check standards were prepared from independent sources. Initial and CCV checks were made at the required frequency resulting in 17 CCVs. All calibration checks met the acceptance criteria.

Method MCAWW 350.1

The initial calibration for ammonia as N was performed using 7 calibration standards on February 8, 2005 resulting in a r^2 value greater than 0.995. Initial and CCVs were made at the required frequency, resulting in 8 CCVs. All initial and CCVs were within the acceptance criteria.

Method MCAWW 160.1

There is no initial or continuing calibration requirement associated with the determination of total dissolved solids (TDS).

Method and Calibration Blanks

The uranium initial and continuing calibration blanks (CCB) were below the practical quantitation limits. The chloride, sulfate, NH₃-N, and TDS method blanks and initial and CCB were below the MDLs with the exception of chloride CCB5 analyzed on February 2, 2005. The samples associated with this CCB were reanalyzed with an acceptable CCB.

Inductively Coupled Plasma Interference Check Sample Analysis

Inductively Coupled Plasma interference check samples were analyzed at the required frequency and all results met the acceptance criteria.

Matrix Spike Analysis

Three pairs of matrix spike and matrix spike duplicate (MS/MSD) samples were analyzed for uranium with acceptable recovery and precision. MS/MSD pairs were analyzed for NH₃-N, chloride, and sulfate with acceptable results.

Laboratory Replicate Analysis

The relative percent difference values for the MSD and laboratory duplicate sample results for chloride, sulfate, NH₃-N, TDS, and uranium were less than 20 percent.

Laboratory Control Sample

Laboratory control samples were analyzed at the correct frequency with acceptable results for all analysis categories.

Metals Serial Dilution

Serial dilutions were performed during the uranium analysis. The data from sample 0501196-2L were not evaluated because the large dilution factors used resulted in concentrations less than 100 times the practical quantitation limit.

Detection Limits/Dilutions

The samples were diluted prior to analysis of uranium to reduce interferences. Samples were diluted in a consistent and acceptable manner when required.

Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

Chromatography Peak Integration

The integration of analyte peaks was reviewed for all ion chromatography data. There were no manual integrations performed and all peak integrations were satisfactory.

Electronic Data Deliverable File

An Electronic Data Deliverable (EDD) file arrived on February 28, 2005; the EDD validation application identified an incorrect location entry for location 0557-44. A replacement EDD file was requested and received on March 1, 2005. No additional errors were identified.

Field Analyses/Activities

The following information summarizes the field analyses and activities for this sampling event period.

Field Activities

All monitor well results were qualified with an “F” flag in the database indicating the wells were purged and sampled using the low-flow sampling method. Extraction wells are not sampled using the low-flow sampling method.

An equipment blank was collected and analyzed for the same constituents as the Moab environmental samples. Concentrations measured in the equipment blank were below their respective contract required detection limits; therefore, equipment blank results are considered acceptable. Duplicate samples were collected from wells 0558-36 and 0403. There are no established regulatory criteria for the evaluation of field duplicate samples; therefore, U.S. Environmental Protection Agency (EPA) guidance for laboratory duplicates (which is conservative for field duplicates) was used to assess the precision of the field duplicates. Duplicate results met the laboratory duplicate criteria of +/- 20 relative percent difference and are considered acceptable.

Certification

Results were reported in correct units for all analytes requested. Appropriate contract-required laboratory qualifiers and target analyte lists were used. The required detection limits were met when possible or an explanation of why they were not met was given in the laboratory case narrative. All analytical quality control criteria were met except as qualified on the Ground Water Quality Data by Parameter, Surface Water Quality by Parameter, or equipment/trip blank database printouts. The meaning of data qualifiers is defined on the database printouts or defined in the EPA Contract Laboratory Program Statement of Work for Inorganic Analysis, Multi-Media Multi-Concentration, Document Number ILMO2.0, 1991. All data in this package are considered validated and may be treated as final results.

Laboratory Validation Lead: Steve Donovan 4-13-05
Steve Donovan Date

Field Activities Validation Lead: J.E. Price 4/12/5
Jeff Price Date

Attachment 1
Data Presentation

Minimums and Maximums Report

Minimums and Maximums Report

The Minimums and Maximums Report is generated by a data validation application (DataVal) used to query the SEEPPro database. DataVal compares the new data set with historical data and lists all new data that fall outside the historical data range. Values listed in the report are further screened using the following criteria. Results are not considered anomalous if (1) identified low concentrations are the result of low detection limits; (2) the concentration detected is within 50 percent of historical minimum or maximum values; (3) there were fewer than 5 historical samples for comparison.

Three anomalously low values were identified this monthly sampling event. These values are observed at well 0483 (chloride), well 0485 (sulfate), and well 0559 (ammonia). All three locations are down gradient from the center of the extraction well field and are consistent with previous results that indicate the mixing of relatively clean river water with ground water. A reversal in the natural ground water flow gradient caused by the interim action pumping wells has induced flow from the river to the pumping wells; therefore, these results are expected and acceptable. The anomalously low values observed this sampling event will be monitored by comparison to the next round.

It is also expected that the ground water flow gradient will slowly start to establish the natural direction since the pumping wells were shut off for the winter on December 23, 2004. This is evidenced by slightly increases in concentrations in some of the monitor wells. The attached time versus concentration plots show slight increases in concentrations as a result of the interim action pumping wells shut off approximately 3-weeks prior to collecting samples for this monthly event.

SAMPLING DATA VALIDATION MINIMUMS AND MAXIMUMS REPORT -- No Field Parameters

LAB CODE: PAR, PARAGON (Fort Collins, CO)

LAB REQUISITION(S): 05010159

HISTORY BEGIN DATE: comparing to all historical data

REPORT DATE: 03/17/05 01:27:29: PM

SITE CODE	LOCATION CODE	SAMPLE DATE	ANALYTE	CURRENT		HISTORICAL MAXIMUM		HISTORICAL MINIMUM		COUNT	
				RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	N	N BELOW DETECT
MOA01	0216	01/27/2005	Chloride	670		610		54		6	0
MOA01	0470	01/25/2005	Sulfate	12000		11000	F	6600		17	0
MOA01	0470	01/25/2005	Uranium	4.6		3.9	F	2.1	J	17	0
MOA01	0472	01/25/2005	Ammonia Total as N	420		1000	F	600		16	0
MOA01	0473	01/25/2005	Ammonia Total as N	600		1100	F	617		15	0
MOA01	0473	01/25/2005	Total Dissolved Solids	13000		25000	F	14000	F	15	0
MOA01	0474	01/25/2005	Ammonia Total as N	410		1110		600	F	17	0
MOA01	0474	01/25/2005	Chloride	1700		8100	F	1900	F	17	0
MOA01	0474	01/25/2005	Total Dissolved Solids	13000		25000	F	14000	F	17	0
MOA01	0475	01/26/2005	Ammonia Total as N	490		1100	F	500		15	0
MOA01	0478	01/26/2005	Uranium	1.1		3.2	F	1.9		15	0
MOA01	0480	01/26/2005	Ammonia Total as N	770	F	1100	JF	897		9	0
MOA01	0481	01/26/2005	Ammonia Total as N	800	F	1100	JF	920	F	10	0
MOA01	0481	01/26/2005	Total Dissolved Solids	24000	F	27000	F	25000	F	10	0
MOA01	0482	01/26/2005	Chloride	53000	F	48300		47100		10	0
MOA01	0483	01/26/2005	Ammonia Total as N	320	F	1500	F	520	F	11	0
MOA01	0483	01/26/2005	Chloride	1800	F	13000	F	3700	F	11	0
MOA01	0483	01/26/2005	Total Dissolved Solids	8500	F	34000	F	11000	F	11	0
MOA01	0485	01/27/2005	Chloride	54000	F	50000	JF	46000	F	9	0
MOA01	0485	01/27/2005	Sulfate	680	F	6610		5800	F	9	0

SAMPLING DATA VALIDATION MINIMUMS AND MAXIMUMS REPORT -- No Field Parameters

LAB CODE: PAR, PARAGON (Fort Collins, CO)

LAB REQUISITION(S): 05010159

HISTORY BEGIN DATE: comparing to all historical data

REPORT DATE: 03/17/05 01:27:29: PM

SITE CODE	LOCATION CODE	SAMPLE DATE	ANALYTE	CURRENT		HISTORICAL MAXIMUM		HISTORICAL MINIMUM		COUNT	
				RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	N	N BELOW DETECT
MOA01	0485	01/27/2005	Uranium	0.8	F	0.78	F	0.000202	B	9	0
MOA01	0557	01/26/2005	Ammonia Total as N	860	F	2300	F	1100	F	7	0
MOA01	0557	01/26/2005	Chloride	18000	F	17000	F	9000	F	7	0
MOA01	0557	01/26/2005	Sulfate	15000	F	14000	F	9700	F	7	0
MOA01	0557	01/26/2005	Total Dissolved Solids	26000	F	41000	F	28000	F	7	0
MOA01	0557	01/26/2005	Uranium	2.5	F	3.1	F	2.7	F	7	0
MOA01	0559	01/27/2005	Ammonia Total as N	130		800	F	280	F	7	0
MOA01	0559	01/27/2005	Chloride	860		6300	F	1600	F	7	0
MOA01	0559	01/27/2005	Sulfate	1700		8100	F	2800	F	7	0
MOA01	0559	01/27/2005	Total Dissolved Solids	3600		22000	F	6500	F	7	0
MOA01	0559	01/27/2005	Uranium	0.53		2.4	F	0.91	F	7	0
MOA01	0560	01/27/2005	Ammonia Total as N	2200	F	2000	F	1200	F	6	0
MOA01	0560	01/27/2005	Ammonia Total as N	2200	F	2000	F	1200	F	6	0
MOA01	0560	01/27/2005	Chloride	36000	F	41000	F	37000	F	6	0
MOA01	0560	01/27/2005	Chloride	36000	F	41000	F	37000	F	6	0
MOA01	0560	01/27/2005	Sulfate	10000	F	8400	F	7300	F	6	0
MOA01	0560	01/27/2005	Sulfate	11000	F	8400	F	7300	F	6	0
MOA01	0560	01/27/2005	Total Dissolved Solids	61000	F	75000	F	65000	F	6	0
MOA01	0560	01/27/2005	Total Dissolved Solids	61000	F	75000	F	65000	F	6	0
MOA01	0560	01/27/2005	Uranium	1.7	F	1.5	F	0.92	JF	6	0
MOA01	0560	01/27/2005	Uranium	1.7	F	1.5	F	0.92	JF	6	0

SAMPLING DATA VALIDATION MINIMUMS AND MAXIMUMS REPORT -- No Field Parameters

LAB CODE: PAR, PARAGON (Fort Collins, CO)

LAB REQUISITION(S): 05010159

HISTORY BEGIN DATE: comparing to all historical data

REPORT DATE: 03/17/05 01:27:29: PM

SITE CODE	LOCATION CODE	SAMPLE DATE	ANALYTE	CURRENT		HISTORICAL MAXIMUM		HISTORICAL MINIMUM		COUNT	
				RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	N	N BELOW DETECT

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- | | | |
|--|--|---|
| J Estimated value. | F Low flow sampling method used. | G Possible grout contamination, pH > 9. |
| L Less than 3 bore volumes purged prior to sampling. | R Unusable result. | X Location is undefined. |
| U Parameter analyzed for but was not detected. | Q Qualitative result due to sampling technique | |

Anomalous Data Review Checksheet

Anomalous Data Review Checksheet

Site: Moab Processing Site Sampling Date: January 25-27, 2005

Reviewer: Jeff Price *J. E. Price* 4/12/05
Name Signature Date

Site Lead: Kenneth Karp *Kenneth Karp* 4/13/05
Name Signature Date

Loc. No.	Analyte	Type of Anomaly	Disposition
<u>0483</u>	<u>Chloride</u>	<u>Low</u>	<u>Due to pumping- results acceptable</u>
<u>0485</u>	<u>Sulfate</u>	<u>Low</u>	<u>Due to pumping- results acceptable</u>
<u>0559</u>	<u>Ammonia as N</u>	<u>Low</u>	<u>Due to pumping- results acceptable</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

Water Quality Data

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3	mg/L	0216	SL, RIV	01/27/2005	0001	0.17 - 0.17	250		#	-
	mg/L	0245	SL, RIV	01/27/2005	0001	0.30 - 0.30	216		#	-
	mg/L	0403	WL	01/27/2005	0001	18.00 - 18.00	260	F	#	-
	mg/L	0407	WL	01/27/2005	0001	17.00 - 17.00	450	F	#	-
	mg/L	0470	WL, EXT	01/25/2005	0001	17.00 - 17.00	1076		#	-
	mg/L	0471	WL, EXT	01/25/2005	0001	17.00 - 17.00	1006		#	-
	mg/L	0472	WL, EXT	01/25/2005	0001	17.00 - 17.00	874		#	-
	mg/L	0473	WL, EXT	01/25/2005	0001	17.00 - 17.00	980		#	-
	mg/L	0474	WL, EXT	01/25/2005	0001	17.00 - 17.00	860		#	-
	mg/L	0475	WL, EXT	01/26/2005	0001	17.00 - 17.00	960		#	-
	mg/L	0476	WL, EXT	01/26/2005	0001	17.00 - 17.00	850		#	-
	mg/L	0477	WL, EXT	01/26/2005	0001	17.00 - 17.00	660		#	-
	mg/L	0478	WL, EXT	01/26/2005	0001	20.00 - 20.00	480		#	-
	mg/L	0479	WL, EXT	01/26/2005	0001	20.00 - 20.00	416		#	-
	mg/L	0480	WL	01/26/2005	0001	18.00 - 18.00	992	F	#	-
	mg/L	0481	WL	01/26/2005	0001	28.00 - 28.00	902	F	#	-
	mg/L	0482	WL	01/26/2005	0001	58.00 - 58.00	360	F	#	-
	mg/L	0483	WL	01/26/2005	0001	18.00 - 18.00	520	F	#	-
	mg/L	0484	WL	01/27/2005	0001	28.00 - 28.00	902	F	#	-
	mg/L	0485	WL	01/27/2005	0001	58.00 - 58.00	192	F	#	-
	mg/L	0557	WL	01/26/2005	0001	44.00 - 44.00	952	F	#	-
	mg/L	0557	WL	01/26/2005	0001	36.00 - 36.00	782	F	#	-
	mg/L	0558	WL	01/27/2005	0001	44.00 - 44.00	398	F	#	-
	mg/L	0558	WL	01/27/2005	0001	36.00 - 36.00	778	F	#	-
	mg/L	0559	WL	01/27/2005	0001	19.00 - 19.00	354		#	-
	mg/L	0560	WL	01/27/2005	0001	39.00 - 39.00	352	F	#	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3	mg/L	0560	WL	01/27/2005	0001	31.00 - 31.00	516	F #	-	-
	mg/L	0561	WL	01/27/2005	0001	54.00 - 54.00	282	F #	-	-
	mg/L	0561	WL	01/27/2005	0001	46.00 - 46.00	366	F #	-	-
Ammonia Total as N	mg/L	0216	SL, RIV	01/27/2005	0001	0.17 - 0.17	57	#	2	-
	mg/L	0245	SL, RIV	01/27/2005	0001	0.30 - 0.30	4.6	#	0.1	-
	mg/L	0403	WL	01/27/2005	0001	18.00 - 18.00	56	F #	5	-
	mg/L	0403	WL	01/27/2005	0002	18.00 - 18.00	57	F #	2	-
	mg/L	0407	WL	01/27/2005	0001	17.00 - 17.00	460	F #	50	-
	mg/L	0470	WL, EXT	01/25/2005	0001	17.00 - 17.00	860	#	50	-
	mg/L	0471	WL, EXT	01/25/2005	0001	17.00 - 17.00	610	#	50	-
	mg/L	0472	WL, EXT	01/25/2005	0001	17.00 - 17.00	420	#	50	-
	mg/L	0473	WL, EXT	01/25/2005	0001	17.00 - 17.00	600	#	50	-
	mg/L	0474	WL, EXT	01/25/2005	0001	17.00 - 17.00	410	#	50	-
	mg/L	0475	WL, EXT	01/26/2005	0001	17.00 - 17.00	490	#	50	-
	mg/L	0476	WL, EXT	01/26/2005	0001	17.00 - 17.00	450	#	50	-
	mg/L	0477	WL, EXT	01/26/2005	0001	17.00 - 17.00	600	#	50	-
	mg/L	0478	WL, EXT	01/26/2005	0001	20.00 - 20.00	680	#	50	-
	mg/L	0479	WL, EXT	01/26/2005	0001	20.00 - 20.00	1100	#	50	-
	mg/L	0480	WL	01/26/2005	0001	18.00 - 18.00	770	F #	50	-
	mg/L	0481	WL	01/26/2005	0001	28.00 - 28.00	800	F #	50	-
	mg/L	0482	WL	01/26/2005	0001	58.00 - 58.00	570	F #	50	-
	mg/L	0483	WL	01/26/2005	0001	18.00 - 18.00	320	F #	50	-
	mg/L	0484	WL	01/27/2005	0001	28.00 - 28.00	1100	F #	50	-
	mg/L	0485	WL	01/27/2005	0001	58.00 - 58.00	500	F #	50	-
	mg/L	0557	WL	01/26/2005	0001	36.00 - 36.00	860	F #	50	-
	mg/L	0557	WL	01/26/2005	0001	44.00 - 44.00	2300	F #	50	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Ammonia Total as N	mg/L	0558	WL	01/27/2005	0001	44.00 - 44.00	1700	F #	50	-
	mg/L	0558	WL	01/27/2005	0001	36.00 - 36.00	2200	F #	50	-
	mg/L	0558	WL	01/27/2005	0002	36.00 - 36.00	2100	F #	50	-
	mg/L	0559	WL	01/27/2005	0001	19.00 - 19.00	130	#	5	-
	mg/L	0560	WL	01/27/2005	0001	31.00 - 31.00	2200	F #	50	-
	mg/L	0560	WL	01/27/2005	0001	39.00 - 39.00	2200	F #	50	-
	mg/L	0561	WL	01/27/2005	0001	54.00 - 54.00	820	F #	50	-
	mg/L	0561	WL	01/27/2005	0001	46.00 - 46.00	1100	F #	50	-
	mg/L	0562	WL, PZ	01/27/2005	N001	1.53 - 1.53	53	FQ #	2	-
	mg/L	0563	WL, PZ	01/27/2005	N001	3.95 - 3.95	97	FQ #	5	-
	mg/L	0564	WL, PZ	01/27/2005	N001	1.32 - 1.32	0.85	FQ #	0.1	-
	mg/L	0565	WL, PZ	01/27/2005	N001	4.32 - 4.32	26	FQ #	1	-
Chloride	mg/L	0216	SL, RIV	01/27/2005	0001	0.17 - 0.17	670	#	10	-
	mg/L	0245	SL, RIV	01/27/2005	0001	0.30 - 0.30	170	#	4	-
	mg/L	0403	WL	01/27/2005	0001	18.00 - 18.00	280	F #	10	-
	mg/L	0403	WL	01/27/2005	0002	18.00 - 18.00	260	F #	10	-
	mg/L	0407	WL	01/27/2005	0001	17.00 - 17.00	4500	F #	100	-
	mg/L	0470	WL, EXT	01/25/2005	0001	17.00 - 17.00	2900	#	100	-
	mg/L	0471	WL, EXT	01/25/2005	0001	17.00 - 17.00	2300	#	40	-
	mg/L	0472	WL, EXT	01/25/2005	0001	17.00 - 17.00	2400	#	40	-
	mg/L	0473	WL, EXT	01/25/2005	0001	17.00 - 17.00	1800	#	40	-
	mg/L	0474	WL, EXT	01/25/2005	0001	17.00 - 17.00	1700	#	40	-
	mg/L	0475	WL, EXT	01/26/2005	0001	17.00 - 17.00	2000	#	40	-
	mg/L	0476	WL, EXT	01/26/2005	0001	17.00 - 17.00	2100	#	40	-
	mg/L	0477	WL, EXT	01/26/2005	0001	17.00 - 17.00	4600	#	100	-
	mg/L	0478	WL, EXT	01/26/2005	0001	20.00 - 20.00	6400	#	100	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN- CERTAINTY	
Chloride	mg/L	0479	WL, EXT	01/26/2005	0001	20.00 - 20.00	14000		#	200	-
	mg/L	0480	WL	01/26/2005	0001	18.00 - 18.00	5500	F	#	100	-
	mg/L	0481	WL	01/26/2005	0001	28.00 - 28.00	8200	F	#	100	-
	mg/L	0482	WL	01/26/2005	0001	58.00 - 58.00	53000	F	#	1000	-
	mg/L	0483	WL	01/26/2005	0001	18.00 - 18.00	1800	F	#	40	-
	mg/L	0484	WL	01/27/2005	0001	28.00 - 28.00	12000	F	#	200	-
	mg/L	0485	WL	01/27/2005	0001	58.00 - 58.00	54000	F	#	1000	-
	mg/L	0557	WL	01/26/2005	0001	36.00 - 36.00	9500	F	#	100	-
	mg/L	0557	WL	01/26/2005	0001	44.00 - 44.00	18000	F	#	400	-
	mg/L	0558	WL	01/27/2005	0001	44.00 - 44.00	48000	F	#	1000	-
	mg/L	0558	WL	01/27/2005	0001	36.00 - 36.00	35000	F	#	400	-
	mg/L	0558	WL	01/27/2005	0002	36.00 - 36.00	34000	F	#	400	-
	mg/L	0559	WL	01/27/2005	0001	19.00 - 19.00	860		#	20	-
	mg/L	0560	WL	01/27/2005	0001	39.00 - 39.00	36000	F	#	400	-
	mg/L	0560	WL	01/27/2005	0001	31.00 - 31.00	36000	F	#	1000	-
	mg/L	0561	WL	01/27/2005	0001	46.00 - 46.00	48000	F	#	1000	-
	mg/L	0561	WL	01/27/2005	0001	54.00 - 54.00	53000	F	#	1000	-
	mg/L	0562	WL, PZ	01/27/2005	N001	1.53 - 1.53	300	FQ	#	10	-
	mg/L	0563	WL, PZ	01/27/2005	N001	3.95 - 3.95	770	FQ	#	20	-
	mg/L	0564	WL, PZ	01/27/2005	N001	1.32 - 1.32	100	FQ	#	4	-
	mg/L	0565	WL, PZ	01/27/2005	N001	4.32 - 4.32	270	FQ	#	10	-
Oxidation Reduction Potent	mV	0216	SL, RIV	01/27/2005	N001	0.17 - 0.17	40.3		#	-	-
	mV	0245	SL, RIV	01/27/2005	N001	0.30 - 0.30	36.4		#	-	-
	mV	0403	WL	01/27/2005	N001	18.00 - 18.00	25.6	F	#	-	-
	mV	0407	WL	01/27/2005	N001	17.00 - 17.00	50.6	F	#	-	-
	mV	0470	WL, EXT	01/25/2005	N001	19.00 - 19.00	152		#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN- CERTAINTY
Oxidation Reduction Potent	mV	0470	WL, EXT	01/25/2005	N001	17.00 - 17.00	154		#	-
	mV	0470	WL, EXT	01/25/2005	N001	15.00 - 15.00	163		#	-
	mV	0471	WL, EXT	01/25/2005	N001	17.00 - 17.00	147		#	-
	mV	0471	WL, EXT	01/25/2005	N001	19.00 - 19.00	146		#	-
	mV	0471	WL, EXT	01/25/2005	N001	15.00 - 15.00	147		#	-
	mV	0472	WL, EXT	01/25/2005	N001	17.00 - 17.00	144		#	-
	mV	0472	WL, EXT	01/26/2005	N001	15.00 - 15.00	53		#	-
	mV	0473	WL, EXT	01/25/2005	N001	17.00 - 17.00	144		#	-
	mV	0473	WL, EXT	01/26/2005	N001	15.00 - 15.00	48		#	-
	mV	0474	WL, EXT	01/25/2005	N001	17.00 - 17.00	143		#	-
	mV	0474	WL, EXT	01/26/2005	N001	15.00 - 15.00	69		#	-
	mV	0475	WL, EXT	01/26/2005	N001	19.00 - 19.00	144		#	-
	mV	0475	WL, EXT	01/26/2005	N001	15.00 - 15.00	148		#	-
	mV	0475	WL, EXT	01/26/2005	N001	17.00 - 17.00	148		#	-
	mV	0476	WL, EXT	01/26/2005	N001	17.00 - 17.00	146		#	-
	mV	0476	WL, EXT	01/26/2005	N001	19.00 - 19.00	146		#	-
	mV	0476	WL, EXT	01/26/2005	N001	15.00 - 15.00	142		#	-
	mV	0477	WL, EXT	01/26/2005	N001	15.00 - 15.00	143		#	-
	mV	0477	WL, EXT	01/26/2005	N001	17.00 - 17.00	144		#	-
	mV	0477	WL, EXT	01/26/2005	N001	19.00 - 19.00	141		#	-
	mV	0478	WL, EXT	01/26/2005	N001	24.00 - 24.00	142		#	-
	mV	0478	WL, EXT	01/26/2005	N001	17.00 - 17.00	74		#	-
	mV	0478	WL, EXT	01/26/2005	N001	15.00 - 15.00	140		#	-
	mV	0478	WL, EXT	01/26/2005	N001	20.00 - 20.00	141		#	-
	mV	0479	WL, EXT	01/26/2005	N001	20.00 - 20.00	106		#	-
	mV	0479	WL, EXT	01/26/2005	N001	17.00 - 17.00	121		#	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potent	mV	0479	WL, EXT	01/26/2005	N001	15.00 - 15.00	139		#	-
	mV	0479	WL, EXT	01/26/2005	N001	24.00 - 24.00	117		#	-
	mV	0480	WL	01/26/2005	N001	18.00 - 18.00	91	F	#	-
	mV	0481	WL	01/26/2005	N001	28.00 - 28.00	86	F	#	-
	mV	0482	WL	01/26/2005	N001	58.00 - 58.00	32.0	F	#	-
	mV	0483	WL	01/26/2005	N001	18.00 - 18.00	-13.7	F	#	-
	mV	0484	WL	01/27/2005	N001	28.00 - 28.00	23.9	F	#	-
	mV	0485	WL	01/27/2005	N001	58.00 - 58.00	17.0	F	#	-
	mV	0557	WL	01/26/2005	N001	36.00 - 36.00	5.3	F	#	-
	mV	0557	WL	01/26/2005	N001	44.00 - 44.00	0.1	F	#	-
	mV	0558	WL	01/27/2005	N001	36.00 - 36.00	21.0	F	#	-
	mV	0558	WL	01/27/2005	N001	44.00 - 44.00	17.2	F	#	-
	mV	0559	WL	01/27/2005	N001	19.00 - 19.00	26.5		#	-
	mV	0560	WL	01/27/2005	N001	39.00 - 39.00	24.3	F	#	-
	mV	0560	WL	01/27/2005	N001	31.00 - 31.00	25.6	F	#	-
	mV	0561	WL	01/27/2005	N001	54.00 - 54.00	-21.8	F	#	-
	mV	0561	WL	01/27/2005	N001	46.00 - 46.00	10.4	F	#	-
	mV	0562	WL, PZ	01/26/2005	N001	1.53 - 1.53	10.9	FQ	#	-
	mV	0563	WL, PZ	01/26/2005	N001	3.95 - 3.95	-0.2	FQ	#	-
	mV	0564	WL, PZ	01/26/2005	N001	1.32 - 1.32	0.8	FQ	#	-
	mV	0565	WL, PZ	01/26/2005	N001	4.32 - 4.32	6.6	FQ	#	-
pH	s.u.	0216	SL, RIV	01/27/2005	N001	0.17 - 0.17	8.00		#	-
	s.u.	0245	SL, RIV	01/27/2005	N001	0.30 - 0.30	8.20		#	-
	s.u.	0403	WL	01/27/2005	N001	18.00 - 18.00	7.28	F	#	-
	s.u.	0407	WL	01/27/2005	N001	17.00 - 17.00	7.13	F	#	-
	s.u.	0470	WL, EXT	01/25/2005	N001	15.00 - 15.00	6.92		#	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN- CERTAINTY
pH	S.U.	0470	WL, EXT	01/25/2005	N001	17.00 - 17.00	6.93	#	-	-
	S.U.	0470	WL, EXT	01/25/2005	N001	19.00 - 19.00	6.96	#	-	-
	S.U.	0471	WL, EXT	01/25/2005	N001	15.00 - 15.00	6.74	#	-	-
	S.U.	0471	WL, EXT	01/25/2005	N001	17.00 - 17.00	6.81	#	-	-
	S.U.	0471	WL, EXT	01/25/2005	N001	19.00 - 19.00	6.90	#	-	-
	S.U.	0472	WL, EXT	01/25/2005	N001	17.00 - 17.00	6.74	#	-	-
	S.U.	0472	WL, EXT	01/26/2005	N001	15.00 - 15.00	6.78	#	-	-
	S.U.	0473	WL, EXT	01/25/2005	N001	17.00 - 17.00	6.85	#	-	-
	S.U.	0473	WL, EXT	01/26/2005	N001	15.00 - 15.00	6.90	#	-	-
	S.U.	0474	WL, EXT	01/25/2005	N001	17.00 - 17.00	6.81	#	-	-
	S.U.	0474	WL, EXT	01/26/2005	N001	15.00 - 15.00	6.87	#	-	-
	S.U.	0475	WL, EXT	01/26/2005	N001	19.00 - 19.00	7.18	#	-	-
	S.U.	0475	WL, EXT	01/26/2005	N001	17.00 - 17.00	7.10	#	-	-
	S.U.	0475	WL, EXT	01/26/2005	N001	15.00 - 15.00	7.09	#	-	-
	S.U.	0476	WL, EXT	01/26/2005	N001	17.00 - 17.00	7.05	#	-	-
	S.U.	0476	WL, EXT	01/26/2005	N001	15.00 - 15.00	7.08	#	-	-
	S.U.	0476	WL, EXT	01/26/2005	N001	19.00 - 19.00	7.16	#	-	-
	S.U.	0477	WL, EXT	01/26/2005	N001	15.00 - 15.00	7.01	#	-	-
	S.U.	0477	WL, EXT	01/26/2005	N001	17.00 - 17.00	7.03	#	-	-
	S.U.	0477	WL, EXT	01/26/2005	N001	19.00 - 19.00	7.10	#	-	-
	S.U.	0478	WL, EXT	01/26/2005	N001	15.00 - 15.00	6.99	#	-	-
	S.U.	0478	WL, EXT	01/26/2005	N001	24.00 - 24.00	7.17	#	-	-
	S.U.	0478	WL, EXT	01/26/2005	N001	17.00 - 17.00	7.10	#	-	-
	S.U.	0478	WL, EXT	01/26/2005	N001	20.00 - 20.00	7.16	#	-	-
	S.U.	0479	WL, EXT	01/26/2005	N001	15.00 - 15.00	6.91	#	-	-
	S.U.	0479	WL, EXT	01/26/2005	N001	17.00 - 17.00	7.04	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0479	WL, EXT	01/26/2005	N001	20.00 - 20.00	7.06		#	-
	s.u.	0479	WL, EXT	01/26/2005	N001	24.00 - 24.00	7.06		#	-
	s.u.	0480	WL	01/26/2005	N001	18.00 - 18.00	6.94	F	#	-
	s.u.	0481	WL	01/26/2005	N001	28.00 - 28.00	6.96	F	#	-
	s.u.	0482	WL	01/26/2005	N001	58.00 - 58.00	6.84	F	#	-
	s.u.	0483	WL	01/26/2005	N001	18.00 - 18.00	7.23	F	#	-
	s.u.	0484	WL	01/27/2005	N001	28.00 - 28.00	6.97	F	#	-
	s.u.	0485	WL	01/27/2005	N001	58.00 - 58.00	6.90	F	#	-
	s.u.	0557	WL	01/26/2005	N001	44.00 - 44.00	6.83	F	#	-
	s.u.	0557	WL	01/26/2005	N001	36.00 - 36.00	6.95	F	#	-
	s.u.	0558	WL	01/27/2005	N001	44.00 - 44.00	6.78	F	#	-
	s.u.	0558	WL	01/27/2005	N001	36.00 - 36.00	7.01	F	#	-
	s.u.	0559	WL	01/27/2005	N001	19.00 - 19.00	7.33		#	-
	s.u.	0560	WL	01/27/2005	N001	39.00 - 39.00	6.75	F	#	-
	s.u.	0560	WL	01/27/2005	N001	31.00 - 31.00	6.75	F	#	-
	s.u.	0561	WL	01/27/2005	N001	46.00 - 46.00	6.94	F	#	-
	s.u.	0561	WL	01/27/2005	N001	54.00 - 54.00	6.86	F	#	-
	s.u.	0562	WL, PZ	01/26/2005	N001	1.53 - 1.53	8.74	FQ	#	-
	s.u.	0563	WL, PZ	01/26/2005	N001	3.95 - 3.95	8.21	FQ	#	-
	s.u.	0564	WL, PZ	01/26/2005	N001	1.32 - 1.32	7.32	FQ	#	-
	s.u.	0565	WL, PZ	01/26/2005	N001	4.32 - 4.32	8.76	FQ	#	-
Specific Conductance	umhos/cm	0216	SL, RIV	01/27/2005	N001	0.17 - 0.17	5636		#	-
	umhos/cm	0245	SL, RIV	01/27/2005	N001	0.30 - 0.30	1758		#	-
	umhos/cm	0403	WL	01/27/2005	N001	18.00 - 18.00	3985	F	#	-
	umhos/cm	0407	WL	01/27/2005	N001	17.00 - 17.00	17010	F	#	-
	umhos/cm	0470	WL, EXT	01/25/2005	N001	15.00 - 15.00	22175		#	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0470	WL, EXT	01/25/2005	N001	17.00 - 17.00	24801	#	-	-
	umhos/cm	0470	WL, EXT	01/25/2005	N001	19.00 - 19.00	34468	#	-	-
	umhos/cm	0471	WL, EXT	01/25/2005	N001	15.00 - 15.00	18700	#	-	-
	umhos/cm	0471	WL, EXT	01/25/2005	N001	17.00 - 17.00	21006	#	-	-
	umhos/cm	0471	WL, EXT	01/25/2005	N001	19.00 - 19.00	32200	#	-	-
	umhos/cm	0472	WL, EXT	01/25/2005	N001	17.00 - 17.00	18390	#	-	-
	umhos/cm	0472	WL, EXT	01/26/2005	N001	15.00 - 15.00	17900	#	-	-
	umhos/cm	0473	WL, EXT	01/25/2005	N001	17.00 - 17.00	17573	#	-	-
	umhos/cm	0473	WL, EXT	01/26/2005	N001	15.00 - 15.00	13000	#	-	-
	umhos/cm	0474	WL, EXT	01/25/2005	N001	17.00 - 17.00	16501	#	-	-
	umhos/cm	0474	WL, EXT	01/26/2005	N001	15.00 - 15.00	8965	#	-	-
	umhos/cm	0475	WL, EXT	01/26/2005	N001	15.00 - 15.00	10200	#	-	-
	umhos/cm	0475	WL, EXT	01/26/2005	N001	17.00 - 17.00	17045	#	-	-
	umhos/cm	0475	WL, EXT	01/26/2005	N001	19.00 - 19.00	31800	#	-	-
	umhos/cm	0476	WL, EXT	01/26/2005	N001	17.00 - 17.00	15695	#	-	-
	umhos/cm	0476	WL, EXT	01/26/2005	N001	15.00 - 15.00	16100	#	-	-
	umhos/cm	0476	WL, EXT	01/26/2005	N001	19.00 - 19.00	32460	#	-	-
	umhos/cm	0477	WL, EXT	01/26/2005	N001	15.00 - 15.00	7340	#	-	-
	umhos/cm	0477	WL, EXT	01/26/2005	N001	17.00 - 17.00	23486	#	-	-
	umhos/cm	0477	WL, EXT	01/26/2005	N001	19.00 - 19.00	42360	#	-	-
	umhos/cm	0478	WL, EXT	01/26/2005	N001	17.00 - 17.00	22325	#	-	-
	umhos/cm	0478	WL, EXT	01/26/2005	N001	15.00 - 15.00	10640	#	-	-
	umhos/cm	0478	WL, EXT	01/26/2005	N001	24.00 - 24.00	25332	#	-	-
	umhos/cm	0478	WL, EXT	01/26/2005	N001	20.00 - 20.00	24442	#	-	-
	umhos/cm	0479	WL, EXT	01/26/2005	N001	20.00 - 20.00	43413	#	-	-
	umhos/cm	0479	WL, EXT	01/26/2005	N001	24.00 - 24.00	44605	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0479	WL, EXT	01/26/2005	N001	15.00 - 15.00	5295		#	-
	umhos/cm	0479	WL, EXT	01/26/2005	N001	17.00 - 17.00	9095		#	-
	umhos/cm	0480	WL	01/26/2005	N001	18.00 - 18.00	28128	F	#	-
	umhos/cm	0481	WL	01/26/2005	N001	28.00 - 28.00	33225	F	#	-
	umhos/cm	0482	WL	01/26/2005	N001	58.00 - 58.00	111547	F	#	-
	umhos/cm	0483	WL	01/26/2005	N001	18.00 - 18.00	12623	F	#	-
	umhos/cm	0484	WL	01/27/2005	N001	28.00 - 28.00	41459	F	#	-
	umhos/cm	0485	WL	01/27/2005	N001	58.00 - 58.00	112472	F	#	-
	umhos/cm	0557	WL	01/26/2005	N001	44.00 - 44.00	58401	F	#	-
	umhos/cm	0557	WL	01/26/2005	N001	36.00 - 36.00	36486	F	#	-
	umhos/cm	0558	WL	01/27/2005	N001	44.00 - 44.00	107643	F	#	-
	umhos/cm	0558	WL	01/27/2005	N001	36.00 - 36.00	87079	F	#	-
	umhos/cm	0559	WL	01/27/2005	N001	19.00 - 19.00	6180		#	-
	umhos/cm	0560	WL	01/27/2005	N001	39.00 - 39.00	91618	F	#	-
	umhos/cm	0560	WL	01/27/2005	N001	31.00 - 31.00	90824	F	#	-
	umhos/cm	0561	WL	01/27/2005	N001	54.00 - 54.00	112080	F	#	-
	umhos/cm	0561	WL	01/27/2005	N001	46.00 - 46.00	107318	F	#	-
	umhos/cm	0562	WL, PZ	01/26/2005	N001	1.53 - 1.53	4622	FQ	#	-
	umhos/cm	0563	WL, PZ	01/26/2005	N001	3.95 - 3.95	6264	FQ	#	-
	umhos/cm	0564	WL, PZ	01/26/2005	N001	1.32 - 1.32	1595	FQ	#	-
	umhos/cm	0565	WL, PZ	01/26/2005	N001	4.32 - 4.32	2630	FQ	#	-
Sulfate	mg/L	0216	SL, RIV	01/27/2005	0001	0.17 - 0.17	1900		#	25
	mg/L	0245	SL, RIV	01/27/2005	0001	0.30 - 0.30	400		#	10
	mg/L	0403	WL	01/27/2005	0001	18.00 - 18.00	1400	F	#	25
	mg/L	0403	WL	01/27/2005	0002	18.00 - 18.00	1500	F	#	25
	mg/L	0407	WL	01/27/2005	0001	17.00 - 17.00	4100	F	#	250

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0470	WL, EXT	01/25/2005	0001	17.00 - 17.00	12000		# 250	-
	mg/L	0471	WL, EXT	01/25/2005	0001	17.00 - 17.00	9300		# 100	-
	mg/L	0472	WL, EXT	01/25/2005	0001	17.00 - 17.00	7300		# 100	-
	mg/L	0473	WL, EXT	01/25/2005	0001	17.00 - 17.00	7900		# 100	-
	mg/L	0474	WL, EXT	01/25/2005	0001	17.00 - 17.00	7400		# 100	-
	mg/L	0475	WL, EXT	01/26/2005	0001	17.00 - 17.00	7500		# 100	-
	mg/L	0476	WL, EXT	01/26/2005	0001	17.00 - 17.00	6700		# 100	-
	mg/L	0477	WL, EXT	01/26/2005	0001	17.00 - 17.00	7000		# 250	-
	mg/L	0478	WL, EXT	01/26/2005	0001	20.00 - 20.00	5800		# 250	-
	mg/L	0479	WL, EXT	01/26/2005	0001	20.00 - 20.00	6700		# 500	-
	mg/L	0480	WL	01/26/2005	0001	18.00 - 18.00	9700	F	# 250	-
	mg/L	0481	WL	01/26/2005	0001	28.00 - 28.00	11000	F	# 250	-
	mg/L	0482	WL	01/26/2005	0001	58.00 - 58.00	6900	F	# 1000	-
	mg/L	0483	WL	01/26/2005	0001	18.00 - 18.00	4600	F	# 100	-
	mg/L	0484	WL	01/27/2005	0001	28.00 - 28.00	11000	F	# 500	-
	mg/L	0485	WL	01/27/2005	0001	58.00 - 58.00	680	F	# 25	-
	mg/L	0557	WL	01/26/2005	0001	36.00 - 36.00	10000	F	# 250	-
	mg/L	0557	WL	01/26/2005	0001	44.00 - 44.00	15000	F	# 1000	-
	mg/L	0558	WL	01/27/2005	0001	44.00 - 44.00	8500	F	# 1000	-
	mg/L	0558	WL	01/27/2005	0001	36.00 - 36.00	12000	F	# 1000	-
	mg/L	0558	WL	01/27/2005	0002	36.00 - 36.00	12000	F	# 1000	-
	mg/L	0559	WL	01/27/2005	0001	19.00 - 19.00	1700		# 50	-
	mg/L	0560	WL	01/27/2005	0001	39.00 - 39.00	10000	F	# 500	-
	mg/L	0560	WL	01/27/2005	0001	31.00 - 31.00	11000	F	# 500	-
	mg/L	0561	WL	01/27/2005	0001	54.00 - 54.00	6700	F	# 1000	-
	mg/L	0561	WL	01/27/2005	0001	46.00 - 46.00	7500	F	# 1000	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0562	WL, PZ	01/27/2005	N001	1.53 - 1.53	1100	FQ #	25	-
	mg/L	0563	WL, PZ	01/27/2005	N001	3.95 - 3.95	1700	FQ #	50	-
	mg/L	0564	WL, PZ	01/27/2005	N001	1.32 - 1.32	290	FQ #	10	-
	mg/L	0565	WL, PZ	01/27/2005	N001	4.32 - 4.32	470	FQ #	25	-
Temperature	C	0216	SL, RIV	01/27/2005	N001	0.17 - 0.17	8.79	#	-	-
	C	0245	SL, RIV	01/27/2005	N001	0.30 - 0.30	8.74	#	-	-
	C	0403	WL	01/27/2005	N001	18.00 - 18.00	9.89	F #	-	-
	C	0407	WL	01/27/2005	N001	17.00 - 17.00	15.32	F #	-	-
	C	0470	WL, EXT	01/25/2005	N001	19.00 - 19.00	14.49	#	-	-
	C	0470	WL, EXT	01/25/2005	N001	17.00 - 17.00	14.54	#	-	-
	C	0470	WL, EXT	01/25/2005	N001	15.00 - 15.00	14.88	#	-	-
	C	0471	WL, EXT	01/25/2005	N001	15.00 - 15.00	13.63	#	-	-
	C	0471	WL, EXT	01/25/2005	N001	19.00 - 19.00	13.64	#	-	-
	C	0471	WL, EXT	01/25/2005	N001	17.00 - 17.00	13.85	#	-	-
	C	0472	WL, EXT	01/25/2005	N001	17.00 - 17.00	13.74	#	-	-
	C	0472	WL, EXT	01/26/2005	N001	15.00 - 15.00	12.22	#	-	-
	C	0473	WL, EXT	01/25/2005	N001	17.00 - 17.00	13.69	#	-	-
	C	0473	WL, EXT	01/26/2005	N001	15.00 - 15.00	14.00	#	-	-
	C	0474	WL, EXT	01/25/2005	N001	17.00 - 17.00	13.72	#	-	-
	C	0474	WL, EXT	01/26/2005	N001	15.00 - 15.00	13.98	#	-	-
	C	0475	WL, EXT	01/26/2005	N001	19.00 - 19.00	12.49	#	-	-
	C	0475	WL, EXT	01/26/2005	N001	15.00 - 15.00	11.92	#	-	-
	C	0475	WL, EXT	01/26/2005	N001	17.00 - 17.00	12.43	#	-	-
	C	0476	WL, EXT	01/26/2005	N001	15.00 - 15.00	9.50	#	-	-
	C	0476	WL, EXT	01/26/2005	N001	19.00 - 19.00	12.72	#	-	-
	C	0476	WL, EXT	01/26/2005	N001	17.00 - 17.00	12.98	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0477	WL, EXT	01/26/2005	N001	15.00 - 15.00	9.02		#	-
	C	0477	WL, EXT	01/26/2005	N001	19.00 - 19.00	13.03		#	-
	C	0477	WL, EXT	01/26/2005	N001	17.00 - 17.00	13.15		#	-
	C	0478	WL, EXT	01/26/2005	N001	17.00 - 17.00	12.27		#	-
	C	0478	WL, EXT	01/26/2005	N001	15.00 - 15.00	12.08		#	-
	C	0478	WL, EXT	01/26/2005	N001	24.00 - 24.00	13.39		#	-
	C	0478	WL, EXT	01/26/2005	N001	20.00 - 20.00	13.64		#	-
	C	0479	WL, EXT	01/26/2005	N001	15.00 - 15.00	12.23		#	-
	C	0479	WL, EXT	01/26/2005	N001	17.00 - 17.00	12.84		#	-
	C	0479	WL, EXT	01/26/2005	N001	24.00 - 24.00	12.87		#	-
	C	0479	WL, EXT	01/26/2005	N001	20.00 - 20.00	13.86		#	-
	C	0480	WL	01/26/2005	N001	18.00 - 18.00	14.85	F	#	-
	C	0481	WL	01/26/2005	N001	28.00 - 28.00	14.91	F	#	-
	C	0482	WL	01/26/2005	N001	58.00 - 58.00	14.63	F	#	-
	C	0483	WL	01/26/2005	N001	18.00 - 18.00	14.27	F	#	-
	C	0484	WL	01/27/2005	N001	28.00 - 28.00	13.77	F	#	-
	C	0485	WL	01/27/2005	N001	58.00 - 58.00	13.64	F	#	-
	C	0557	WL	01/26/2005	N001	36.00 - 36.00	14.21	F	#	-
	C	0557	WL	01/26/2005	N001	44.00 - 44.00	13.93	F	#	-
	C	0558	WL	01/27/2005	N001	44.00 - 44.00	12.95	F	#	-
	C	0558	WL	01/27/2005	N001	36.00 - 36.00	13.14	F	#	-
	C	0559	WL	01/27/2005	N001	19.00 - 19.00	14.49		#	-
	C	0560	WL	01/27/2005	N001	31.00 - 31.00	12.78	F	#	-
	C	0560	WL	01/27/2005	N001	39.00 - 39.00	13.06	F	#	-
	C	0561	WL	01/27/2005	N001	46.00 - 46.00	13.58	F	#	-
	C	0561	WL	01/27/2005	N001	54.00 - 54.00	14.05	F	#	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0562	WL, PZ	01/26/2005	N001	1.53 - 1.53	6.97	FQ #	-	-
	C	0563	WL, PZ	01/26/2005	N001	3.95 - 3.95	6.04	FQ #	-	-
	C	0564	WL, PZ	01/26/2005	N001	1.32 - 1.32	7.10	FQ #	-	-
	C	0565	WL, PZ	01/26/2005	N001	4.32 - 4.32	6.69	FQ #	-	-
Total Dissolved Solids	mg/L	0216	SL, RIV	01/27/2005	0001	0.17 - 0.17	3800	#	80	-
	mg/L	0245	SL, RIV	01/27/2005	0001	0.30 - 0.30	990	#	20	-
	mg/L	0403	WL	01/27/2005	0001	18.00 - 18.00	2500	F #	80	-
	mg/L	0403	WL	01/27/2005	0002	18.00 - 18.00	2600	F #	40	-
	mg/L	0407	WL	01/27/2005	0001	17.00 - 17.00	11000	F #	400	-
	mg/L	0470	WL, EXT	01/25/2005	0001	17.00 - 17.00	19000	#	400	-
	mg/L	0471	WL, EXT	01/25/2005	0001	17.00 - 17.00	16000	#	400	-
	mg/L	0472	WL, EXT	01/25/2005	0001	17.00 - 17.00	14000	#	400	-
	mg/L	0473	WL, EXT	01/25/2005	0001	17.00 - 17.00	13000	#	400	-
	mg/L	0474	WL, EXT	01/25/2005	0001	17.00 - 17.00	13000	#	400	-
	mg/L	0475	WL, EXT	01/26/2005	0001	17.00 - 17.00	13000	#	400	-
	mg/L	0476	WL, EXT	01/26/2005	0001	17.00 - 17.00	12000	#	400	-
	mg/L	0477	WL, EXT	01/26/2005	0001	17.00 - 17.00	16000	#	400	-
	mg/L	0478	WL, EXT	01/26/2005	0001	20.00 - 20.00	16000	#	400	-
	mg/L	0479	WL, EXT	01/26/2005	0001	20.00 - 20.00	27000	#	1000	-
	mg/L	0480	WL	01/26/2005	0001	18.00 - 18.00	20000	F #	400	-
	mg/L	0481	WL	01/26/2005	0001	28.00 - 28.00	24000	F #	400	-
	mg/L	0482	WL	01/26/2005	0001	58.00 - 58.00	84000	F #	2000	-
	mg/L	0483	WL	01/26/2005	0001	18.00 - 18.00	8500	F #	200	-
	mg/L	0484	WL	01/27/2005	0001	28.00 - 28.00	29000	F #	1000	-
	mg/L	0485	WL	01/27/2005	0001	58.00 - 58.00	84000	F #	2000	-
	mg/L	0557	WL	01/26/2005	0001	36.00 - 36.00	26000	F #	400	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Total Dissolved Solids	mg/L	0557	WL	01/26/2005	0001	44.00 - 44.00	39000	F #	1000	-
	mg/L	0558	WL	01/27/2005	0001	36.00 - 36.00	58000	F #	2000	-
	mg/L	0558	WL	01/27/2005	0001	44.00 - 44.00	76000	F #	2000	-
	mg/L	0558	WL	01/27/2005	0002	36.00 - 36.00	58000	F #	2000	-
	mg/L	0559	WL	01/27/2005	0001	19.00 - 19.00	3600	#	80	-
	mg/L	0560	WL	01/27/2005	0001	39.00 - 39.00	61000	F #	2000	-
	mg/L	0560	WL	01/27/2005	0001	31.00 - 31.00	61000	F #	2000	-
	mg/L	0561	WL	01/27/2005	0001	46.00 - 46.00	77000	F #	2000	-
	mg/L	0561	WL	01/27/2005	0001	54.00 - 54.00	85000	F #	2000	-
	mg/L	0562	WL, PZ	01/27/2005	N001	1.53 - 1.53	2000	FQ #	80	-
	mg/L	0563	WL, PZ	01/27/2005	N001	3.95 - 3.95	3600	FQ #	80	-
	mg/L	0564	WL, PZ	01/27/2005	N001	1.32 - 1.32	650	FQ #	40	-
	mg/L	0565	WL, PZ	01/27/2005	N001	4.32 - 4.32	1800	FQ #	40	-
Turbidity	NTU	0216	SL, RIV	01/27/2005	N001	0.17 - 0.17	1000	> #	-	-
	NTU	0245	SL, RIV	01/27/2005	N001	0.30 - 0.30	208	#	-	-
	NTU	0403	WL	01/27/2005	N001	18.00 - 18.00	0.50	F #	-	-
	NTU	0407	WL	01/27/2005	N001	17.00 - 17.00	0.68	F #	-	-
	NTU	0470	WL, EXT	01/25/2005	N001	17.00 - 17.00	2.73	#	-	-
	NTU	0471	WL, EXT	01/25/2005	N001	17.00 - 17.00	0.68	#	-	-
	NTU	0472	WL, EXT	01/25/2005	N001	17.00 - 17.00	1.16	#	-	-
	NTU	0473	WL, EXT	01/25/2005	N001	17.00 - 17.00	3.85	#	-	-
	NTU	0474	WL, EXT	01/25/2005	N001	17.00 - 17.00	5.74	#	-	-
	NTU	0475	WL, EXT	01/26/2005	N001	17.00 - 17.00	0.95	#	-	-
	NTU	0476	WL, EXT	01/26/2005	N001	17.00 - 17.00	2.02	#	-	-
	NTU	0477	WL, EXT	01/26/2005	N001	17.00 - 17.00	2.04	#	-	-
	NTU	0478	WL, EXT	01/26/2005	N001	20.00 - 20.00	4.51	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0479	WL, EXT	01/26/2005	N001	20.00 - 20.00	2.28		#	-
	NTU	0480	WL	01/26/2005	N001	18.00 - 18.00	2.60	F	#	-
	NTU	0481	WL	01/26/2005	N001	28.00 - 28.00	3.46	F	#	-
	NTU	0482	WL	01/26/2005	N001	58.00 - 58.00	6.19	F	#	-
	NTU	0483	WL	01/26/2005	N001	18.00 - 18.00	1.66	F	#	-
	NTU	0484	WL	01/27/2005	N001	28.00 - 28.00	18.5	F	#	-
	NTU	0485	WL	01/27/2005	N001	58.00 - 58.00	5.95	F	#	-
	NTU	0557	WL	01/26/2005	N001	36.00 - 36.00	2.32	F	#	-
	NTU	0557	WL	01/26/2005	N001	44.00 - 44.00	3.73	F	#	-
	NTU	0558	WL	01/27/2005	N001	44.00 - 44.00	3.22	F	#	-
	NTU	0558	WL	01/27/2005	N001	36.00 - 36.00	9.45	F	#	-
	NTU	0559	WL	01/27/2005	N001	19.00 - 19.00	1.61		#	-
	NTU	0560	WL	01/27/2005	N001	31.00 - 31.00	1.52	F	#	-
	NTU	0560	WL	01/27/2005	N001	39.00 - 39.00	2.10	F	#	-
	NTU	0561	WL	01/27/2005	N001	54.00 - 54.00	11.5	F	#	-
	NTU	0561	WL	01/27/2005	N001	46.00 - 46.00	41.0	F	#	-
	NTU	0562	WL, PZ	01/26/2005	N001	1.53 - 1.53	134	FQ	#	-
	NTU	0563	WL, PZ	01/26/2005	N001	3.95 - 3.95	134	FQ	#	-
	NTU	0564	WL, PZ	01/26/2005	N001	1.32 - 1.32	343	FQ	#	-
	NTU	0565	WL, PZ	01/26/2005	N001	4.32 - 4.32	1000	> FQ	#	-
Uranium	mg/L	0216	SL, RIV	01/27/2005	0001	0.17 - 0.17	0.500		#	2.3E-05
	mg/L	0245	SL, RIV	01/27/2005	0001	0.30 - 0.30	0.054		#	2.3E-05
	mg/L	0403	WL	01/27/2005	0001	18.00 - 18.00	0.420	F	#	0.00046
	mg/L	0403	WL	01/27/2005	0002	18.00 - 18.00	0.450	F	#	2.3E-05
	mg/L	0407	WL	01/27/2005	0001	17.00 - 17.00	1.000	E F	#	0.00046
	mg/L	0470	WL, EXT	01/25/2005	0001	17.00 - 17.00	4.600		#	0.00046

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN- CERTAINTY
Uranium	mg/L	0471	WL, EXT	01/25/2005	0001	17.00 - 17.00	4.000		# 0.00046	-
	mg/L	0472	WL, EXT	01/25/2005	0001	17.00 - 17.00	3.100		# 0.00046	-
	mg/L	0473	WL, EXT	01/25/2005	0001	17.00 - 17.00	3.100		# 0.00046	-
	mg/L	0474	WL, EXT	01/25/2005	0001	17.00 - 17.00	2.700		# 0.00046	-
	mg/L	0475	WL, EXT	01/26/2005	0001	17.00 - 17.00	2.700		# 0.00046	-
	mg/L	0476	WL, EXT	01/26/2005	0001	17.00 - 17.00	1.900		# 0.00046	-
	mg/L	0477	WL, EXT	01/26/2005	0001	17.00 - 17.00	1.800		# 0.00046	-
	mg/L	0478	WL, EXT	01/26/2005	0001	20.00 - 20.00	1.100		# 9.1E-05	-
	mg/L	0479	WL, EXT	01/26/2005	0001	20.00 - 20.00	1.200		# 0.00046	-
	mg/L	0480	WL	01/26/2005	0001	18.00 - 18.00	2.900	F	# 0.00046	-
	mg/L	0481	WL	01/26/2005	0001	28.00 - 28.00	2.800	F	# 0.00046	-
	mg/L	0482	WL	01/26/2005	0001	58.00 - 58.00	0.580	F	# 0.00046	-
	mg/L	0483	WL	01/26/2005	0001	18.00 - 18.00	1.200	F	# 0.00046	-
	mg/L	0484	WL	01/27/2005	0001	28.00 - 28.00	2.700	F	# 0.00046	-
	mg/L	0485	WL	01/27/2005	0001	58.00 - 58.00	0.800	F	# 4.5E-05	-
	mg/L	0557	WL	01/26/2005	0001	44.00 - 44.00	2.500	F	# 0.00046	-
	mg/L	0557	WL	01/26/2005	0001	36.00 - 36.00	2.900	F	# 0.00046	-
	mg/L	0558	WL	01/27/2005	0001	44.00 - 44.00	1.000	F	# 9.1E-05	-
	mg/L	0558	WL	01/27/2005	0001	36.00 - 36.00	1.700	F	# 0.00046	-
	mg/L	0558	WL	01/27/2005	0002	36.00 - 36.00	1.700	F	# 0.00046	-
	mg/L	0559	WL	01/27/2005	0001	19.00 - 19.00	0.530		# 4.5E-05	-
	mg/L	0560	WL	01/27/2005	0001	31.00 - 31.00	1.700	F	# 0.00046	-
	mg/L	0560	WL	01/27/2005	0001	39.00 - 39.00	1.700	F	# 0.00046	-
	mg/L	0561	WL	01/27/2005	0001	54.00 - 54.00	0.470	F	# 0.00046	-
	mg/L	0561	WL	01/27/2005	0001	46.00 - 46.00	0.920	F	# 9.1E-05	-
	mg/L	0563	WL, PZ	01/27/2005	N001	3.95 - 3.95	0.086	FQ	# 2.3E-05	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0565	WL, PZ	01/27/2005	N001	4.32 - 4.32	0.00041	FQ #	4.6E-06	-

RECORDS: SELECTED FROM USEE200 WHERE site_code='MOA01' AND location_code in('0470','0471','0472','0473','0474','0475','0476','0477','0478','0479','0403','0407','0480','0481','0482','0483','0484','0485','0557','0558','0559','0560','0561','0562','0563','0564','0565','0216','0245') AND quality_assurance = TRUE AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #1/25/2005# and #1/27/2005#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: SL SURFACE LOCATION WL WELL

LOCATION SUBTYPES: EXT Extraction Well PZ Piezometer RIV River

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- | | | |
|--|--|--------------------|
| F Low flow sampling method used. | G Possible grout contamination, pH > 9. | J Estimated value. |
| L Less than 3 bore volumes purged prior to sampling. | Q Qualitative result due to sampling technique | R Unusable result. |
| U Parameter analyzed for but was not detected. | X Location is undefined. | |

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

BLANKS REPORT

LAB CODE: PAR, PARAGON (Fort Collins, CO)

LAB REQUISITION(S): 05010159

REPORT DATE: 03/17/05 01:27:09: PM

PARAMETER	SITE CODE	LOCATION ID	SAMPLE DATE	ID	UNITS	RESULT	QUALIFIERS LAB DATA	DETECTION LIMIT	UNCERTAINTY	SAMPLE TYPE
Ammonia Total as N	MOA01	0999	01/27/2005	0001	mg/L	0.1	U	0.1		E
Chloride	MOA01	0999	01/27/2005	0001	mg/L	0.22		0.2		E
Sulfate	MOA01	0999	01/27/2005	0001	mg/L	1.5		0.5		E
Total Dissolved Solids	MOA01	0999	01/27/2005	0001	mg/L	20	U	20		E
Uranium	MOA01	0999	01/27/2005	0001	mg/L	0.000037	B U	0.0000046		E

BLANKS REPORT

LAB CODE: PAR, PARAGON (Fort Collins, CO)

LAB REQUISITION(S): 05010159

REPORT DATE: 03/17/05 01:27:09: PM

PARAMETER	SITE CODE	LOCATION ID	SAMPLE DATE	ID	UNITS	RESULT	QUALIFIERS LAB DATA	DETECTION LIMIT	UNCERTAINTY	SAMPLE TYPE
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SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- | | | |
|--|--|---|
| J Estimated value. | F Low flow sampling method used. | G Possible grout contamination, pH > 9. |
| L Less than 3 bore volumes purged prior to sampling. | R Unusable result. | X Location is undefined. |
| U Parameter analyzed for but was not detected. | Q Qualitative result due to sampling technique | |

SAMPLE TYPES:

- E EQUIPMENT BLANK

Water Level Data

STATIC WATER LEVELS (USEE700) FOR SITE MOA01, Moab Site
 REPORT DATE: 3/17/2005 2:16 pm

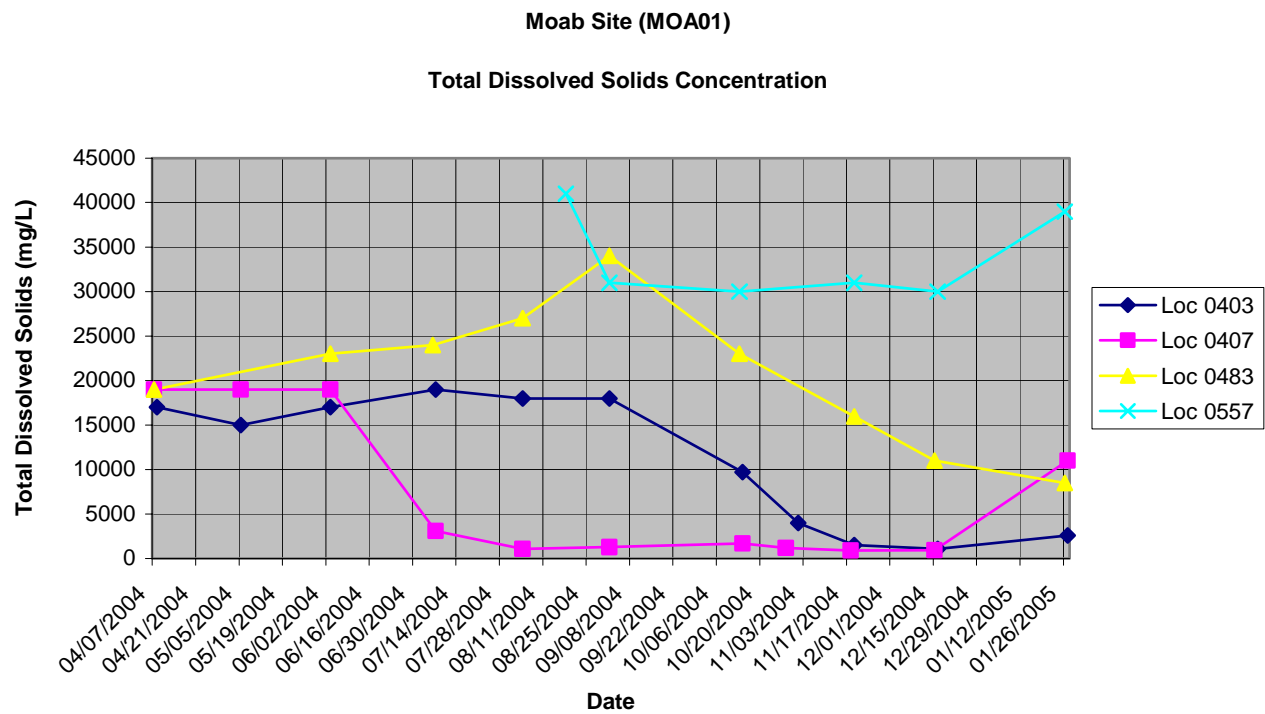
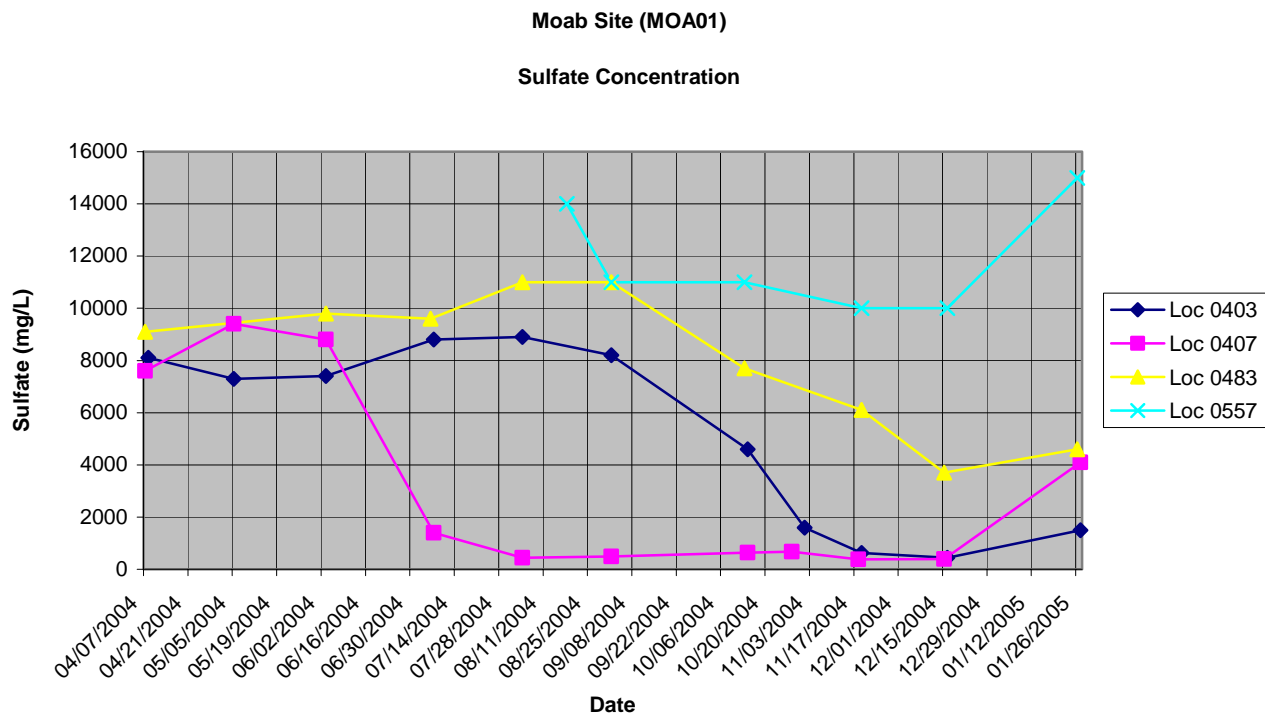
LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
			DATE	TIME			
0403	O	3968.95	01/27/2005	11:51	15.87	3953.08	
0407	O	3969.09	01/27/2005	12:35	16.83	3952.26	
0470		3968.49	01/25/2005	15:30	16.13	3952.36	
0471		3968.83	01/25/2005	16:08	16.25	3952.58	
0472		3968.81	01/25/2005	16:36	16.26	3952.55	
0473		3969.05	01/25/2005	16:55	16.21	3952.84	
0474		3969.22	01/25/2005	17:20	16.46	3952.76	
0475		3969.46	01/26/2005	08:31	16.52	3952.94	
0476		3969.48	01/26/2005	09:06	16.56	3952.92	
0477		3969.40	01/26/2005	09:38	16.30	3953.10	
0478		3969.49	01/26/2005	10:11	16.29	3953.20	
0479		3969.27	01/26/2005	10:46	15.96	3953.31	
0480		3968.65	01/26/2005	13:00	15.88	3952.77	
0481		3968.83	01/26/2005	13:18	15.62	3953.21	
0482		3968.70	01/26/2005	13:36	16.40	3952.30	
0483		3968.90	01/26/2005	17:22	16.12	3952.78	
0484		3969.19	01/27/2005	08:10	16.22	3952.97	
0485		3968.81	01/27/2005	08:38	16.00	3952.81	
0557		3968.85	01/26/2005	13:59	15.35	3953.50	
0558		3968.79	01/27/2005	09:01	16.21	3952.58	
0559		3969.92	01/27/2005	09:50	17.32	3952.60	
0560		3968.77	01/27/2005	10:15	16.18	3952.59	
0561		3968.56	01/27/2005	11:02	16.22	3952.34	
0562		3956.29	01/26/2005	16:47	3.77	3952.52	
0563		3955.05	01/26/2005	16:52	2.81	3952.24	
0564		3956.39	01/26/2005	16:33	3.98	3952.41	
0565		3954.05	01/26/2005	16:39	2.14	3951.91	

RECORDS: SELECTED FROM USEE700 WHERE site_code='MOA01' AND location_code in('0470','0471','0472','0473','0474','0475','0476','0477','0478','0479','0403','0407','0480','0481','0482','0483','0484','0485','0557','0558','0559','0560','0561','0562','0563','0564','0565','0216','0245') AND LOG_DATE between #1/25/2005# and #1/27/2005#

FLOW CODES: O ON-SITE

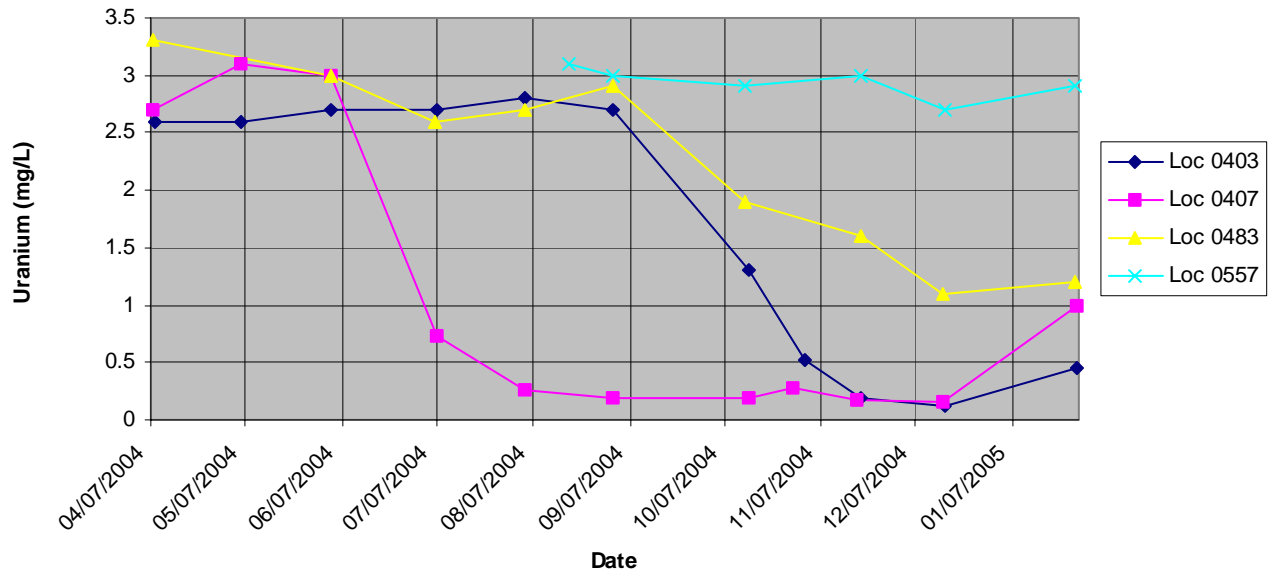
WATER LEVEL FLAGS:

Time Versus Concentration Graphs



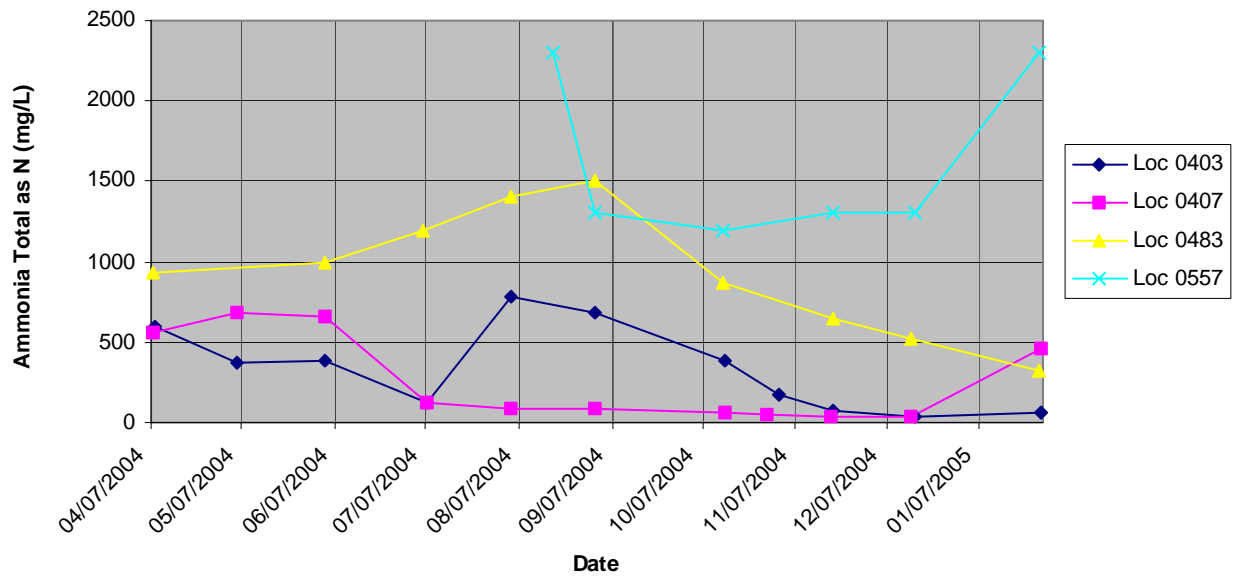
Moab Site (MOA01)

Uranium Concentration



Moab Site (MOA01)

Ammonia Total as N Concentration



Attachment 2

Trip Report



established 1959

DATE: February 8, 2005

TO: Ken Karp

FROM: K. G. Pill

SUBJECT: Trip Report

Site: Moab – Interim Action Configuration I Extraction Well Field Monthly Sampling – January 2005

Date of Sampling Event: January 25, 26, and 27, 2005.

Team Members: Ken Pill and Steve Hall.

Number of Locations Sampled: 10 extraction wells (0470 through 0479), 13 observation wells (0403, 0407, 0480 through 485, 0557 [2 depths], 0558 [2 depths], 0559, 0560 [2 depths], and 0561 [2 depths]), 4 piezometers (0562 through 0565) and 2 surface water locations (0216 and 0245). Including two duplicates and one equipment blank, a total of **36** samples were collected.

Locations in Which Field Parameters Were Measured Only: Field parameters were measured within the extraction wells from various depths in which samples were not collected. In most cases (but not all) these parameters were measured from 15 and 19 ft bgs.

Locations Not Sampled/Reason: Locations 0547 and 0548 were not sampled. The system was not running during this sampling event; therefore, there was no evaporation pond inflow sample (0547) or evaporation pond recirculation pump sample (0548) to collect.

Field Variance: Only a 125 ml sample was collected for uranium analysis as opposed to the standard 500 ml sample volume. Limited sample volumes collected from piezometers 0562 through 0565 were not filtered in the field and not preserved beyond 4 °C. This variance was discussed with Steve Donivan prior to sample submittal.

Quality Control Sample Cross Reference: Following are the false identifications assigned to the quality control samples:

FALSE ID	TRUE ID	SAMPLE TYPE	ASSOCIATED MATRIX	TICKET NUMBER
2755	0558-36	Duplicate	Ground water	NDY-669
2756	NA	Equipment Blank	Water	NDY-673
2757	0403	Duplicate	Ground water	NDY-952

RIN Number Assigned: All samples were assigned to RIN **05010159**.

Sample Shipment: All samples with the exception of the piezometers and surface water locations were shipped in 2 coolers overnight FEDEX to Paragon Analytics, Inc. from Moab, Utah, on January 27, 2005 (Airbill Nos. 8473 2967 6237 and 8473 2967 6248). The piezometer and surface water samples were submitted with the CF II samples sent on January 28, 2005 (Airbill No. 8473 2967 6259).

Location Specific Information – Extraction Wells: These wells typically are sampled using dedicated submersible pumps. However, because the well field was not operating, each extraction well was sampled using micro-purge techniques with a peristaltic pump and downhole tubing. Sample depths and water levels for each well are listed below. **Note the sample depths are below ground surface.**

Well No.	Date	Time	Water Level (ft btoc)	Sample Depth (ft bgs)
0470	1/25/05	15:30	16.13	17
0471	1/25/05	16:08	16.25	17
0472	1/25/05	16:36	16.26	17
0473	1/25/05	16:55	16.21	17
0474	1/25/05	17:20	16.46	17
0475	1/26/05	08:31	16.52	17
0476	1/26/05	09:06	16.56	17
0477	1/26/05	09:38	16.30	17
0478	1/26/05	10:11	16.29	20
0479	1/26/05	10:46	15.96	20

Field parameters (only) were measured from various depths within the extraction wells. This information is provided below. These samples were not submitted for laboratory analysis.

Measurement Location	Ground Water Parameters						
	Date	Time	Temp (°C)	Specific Conductance (µS/cm)	pH	ORP	Sample Depth (ft bgs)
0470	1/25/05	15:15	14.88	22,175	6.92	163	15
		15:47	14.49	34,468	6.96	152	19
0471	1/25/05	15:58	13.63	18,700	6.74	147	15
		16:25	13.64	32,200	6.90	146	19
0472	1/26/05	11:45	12.22	17,900	6.78	53	15
0473	1/26/05	11:49	14.0	13,000	6.90	48	15
0474	1/26/05	12:03	13.98	8,965	6.87	69	15
0475	1/26/05	08:20	11.92	10,200	7.09	148	15
		08:53	12.49	31,800	7.18	144	19
0476	1/26/05	09:00	9.5	16,100	7.08	142	15
		09:21	12.72	32,460	7.16	146	19
0477	1/26/05	09:31	9.02	7,340	7.01	143	15
		09:56	13.03	42,360	7.10	141	19
0478	1/26/05	10:06	12.08	10,640	6.99	140	15
		11:26	12.27	22,325	7.10	74	17
		10:27	13.39	25,332	7.17	142	24
0479	1/26/05	10:39	12.23	5,295	6.91	139	15
		11:20	12.84	9,095	7.04	121	17
		11:05	12.87	44,605	7.06	117	24

Location Specific Information – Observation Wells: All observation wells were sampled using micro-purge techniques with a peristaltic pump and downhole tubing. Sample depths and water levels for each observation well are listed below. **Note the sample depths are below ground surface.**

Well No.	Date	Time	Depth to Water (ft btoc)	Sample Depth (ft bgs)
0403	1/27/05	11:51	15.87	18
0407	1/27/05	12:35	16.83	17
0480	1/26/05	13:00	15.88	18
0481	1/26/05	13:18	15.62	28
0482	1/26/05	13:36	16.40	58
0483	1/26/05	17:22	16.12	18
0484	1/27/05	08:10	16.22	28
0485	1/27/05	08:38	16.00	58
0557	1/26/05	13:59	15.35	36 / 44
0558	1/27/05	09:01	16.21	36 / 44
0559	1/27/05	09:50	17.32	19
0560	1/27/05	10:15	16.18	31 / 39
0561	1/27/05	11:02	16.22	46 / 54

Location Specific Information – Piezometers: Water levels were measured in piezometers 0562, 0563, 0564, and 0565. It was dry at the base of each location (photographs of each location are attached to this report). The data are provided below:

PZ No.	Date	Time	Depth to Water (ft btoc)
0562	1/26/05	16:47	3.77
0563	1/26/05	16:52	2.81
0564	1/26/05	16:36	3.98
0565	1/26/05	16:39	2.14

Limited sample volumes were collected from piezometers 0562, 0563, 0564, and 0565 (approximately 100, 250, 100, and 300 mls, respectively) on January 27, 2005. In order to maximize the volume of water available for analysis, these samples were not filtered in the field and were not acid preserved.

Location Specific Information – Surface Water Sampling: A steady rain was falling during the sampling of locations 0216 and 0245. Prior to the rainfall, the water body in the vicinity of location 0216 was cut off from the main channel in both the upstream and downstream directions. In addition, there was not sufficient depth to collect a sample prior to the rainfall, which quickly increased the river stage after approximately 1 hr of rain. Location 0216 was sampled approximately 10 ft to the north of the marked location in order to find a location deep enough to conduct sampling and sample water in contact with the base of the bank.

The sample from 0245 was collected approximately 20 ft east of the base of piezometers 0564/0565. The water body at this location was connected to the main channel in both the

upstream and downstream directions prior to the rainfall event. Photos of these locations are attached to this report. Sample depths associated with each surface water sample are provided below:

Location No.	Date	Time	Sample Depth (ft bws)
0216	1/27/05	18:00	0.17
0245	1/27/05	17:50	0.3

Notes: ft bws = feet below water surface

Well Inspection Summary: A well inspection was not conducted.

Equipment: All equipment functioned properly.

Site Issues: The extraction wells had been running since June 2004 and were shut down December 23, 2004. They had not been disturbed since the shutdown prior to this sampling event, which will represent the baseline conditions for the 2005 pumping season.

According to the USGS Cisco Gaging Station (Station No. 09180500), the mean daily Colorado River Flow on January 25, 2005, was 3,020 cfs, on January 26, 2005, the flow was 3,000 cfs, and on January 27, 2005 the flow increased to 3,120 cfs.

Corrective Action Required/Taken: None.

(KGP/lcg)

cc: J. D. Berwick, DOE-EM (e)
D. R. Metzler, DOE-EM
C. I. Bahrke, Stoller (e)
L. E. Cummins, Stoller (e)
S. E. Donovan, Stoller (e)
L. M. Edwards, Stoller (e)
S. D. Lyon, Stoller (e)
K. E. Miller, Stoller
K. G. Pill, Stoller (e)
J. E. Price, Stoller (e)
L. M. Wright, Stoller (e)
Working File, MOA



Piezometers 0562 and 0563, Surface Location 0216



Piezometers 0564 and 0565, Surface Location 0245